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Identity as a Buffer Against Negative Outcomes of Public Stigma Among Lesbian, Gay, and
Bisexual Individuals

A thesis
presented to
the faculty of the Department of Psychology
East Tennessee State University

In partial fulfillment
of the requirements for the degree
Master of Arts in Psychology

by
Emma G. Fredrick
May 2015

Stacey L. Williams, PhD, Chair
Ginni C. Blackhart, PhD
Matthew McBee, PhD

Keywords: minority stress theory, sexual orientation, identity, mental health, self-esteem

ABSTRACT

Identity as a Buffer Against Negative Outcomes of Public Stigma Among Lesbian, Gay, and

Bisexual Individuals

by

Emma G. Fredrick

Sexual minority individuals suffer stigmatization which often predicts negative mental health outcomes and low self-esteem. However, specific dimensions of identity have been shown to buffer against negative outcomes in racial minorities and other stigmatized groups. Yet, limited research has examined identity as a buffer for sexual minorities. This thesis aimed to explore the moderating role of identity characteristics between sexual stigma and mental health outcomes. Findings in a sample of 209 gays, lesbians, and bisexuals suggested that public stigma, centrality, and private regard predict psychological distress. Private regard also emerged as a predictor of self-esteem. Additionally, centrality and public stigma interacted such that those who reported higher centrality of sexual minority identity did not report decrements to self-esteem in the face of public stigma to the extent as those who reported lower centrality. These findings suggest centrality and private regard are key factors in the psychological well-being of sexual minorities.

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CHAPTER 1

INTRODUCTION

Those who identify as lesbian, gay, or bisexual (LGB) in the United States live as stigmatized individuals and experience both distal (e.g., objective prejudice events) and proximal (e.g., internalized stigma, expectation of rejection) minority stress (Meyer, 2003). Such minority stress can lead to negative mental health outcomes (e.g., distress; Meyer, 1995) as well as physical health outcomes (Frost, 2011). The link between minority stress and negative outcomes is supported by many studies and position papers that evidence stigma as a social determinant of health (see Hatzenbuehler, Phelan, & Link, 2013). Yet, not all LGB individuals experience negative outcomes (Cochran, Sullivan, & Mays, 2003; Savin-Williams, 2001). The present thesis is based on the premise that identification with the stigmatized group may protect sexual minorities from the harmful effects of minority stress. For example, it has been found in other stigmatized group, such as Black individuals, that identifying closely with one's similar others (i.e., those with the same stigmatizing characteristic) can buffer the effects of racial stigma resulting in fewer negative mental health outcomes and higher self-esteem (Carter & Reynolds, 2011; Mossakowski, 2003; Sellers, Caldwell, Schmeelk-Cone, & Zimmerman, 2003). However, sexual identity as a buffer to minority stress has been minimally studied in LGB individuals. The current study aims to explore the moderating role of multiple aspects of sexual identity in minority stress in outcomes of mental health and self-esteem among LGB individuals.

Sexual Minority Stigma

Historically, stigma has referred to an attribute of a person that is deeply discrediting (Goffman, 1963). More recently, stigma has been defined as the co-occurrence of labeling, stereotyping, separation, status loss, and discrimination in a power situation that facilitates these

components of stigma (Link & Phelan, 2001). Stigma can be differentiated by visible (e.g., race, physical handicap) and invisible (e.g., sexual minority status, mental illness), or discreditable and discredited (Chaudoir, Earnshaw, & Aniel, 2013; Goffman, 1963). The distinction between visible and concealable is important given the possible threat of discovery for those with a concealable stigma, such as LGB individuals. In addition, stigma is distinguished by its public stigma (perpetrated by others) and internalized (perpetrated by the self) components (Corrigan, 2004). Even more nuance is captured when public stigma is broken down into two types: (1) enacted stigma, or objective discrimination events, and (2) anticipated (also referred to as felt) stigma, or stigma expected to happen given a minority identity (Chaudoir et al., 2013; Herek, 2007).

Given this study's focus on LGB individuals, I further distinguish public stigma by focusing solely on sexual stigma. According to Herek (2007), sexual stigma is "the negative regard, inferior status, and relative powerlessness that society collectively accords to any nonheterosexual behavior, identity, relationship, or community" (pp. 906-907). The public form of sexual stigma can manifest in multiple ways. For example, sexual minority individuals face structural stigma from their own governments by being denied rights that others are afforded such as protection from being fired from their jobs or denied marriage opportunities because of their sexual minority status (Meyer & Frost, 2012). Further, there are currently 34 active anti-gay hate groups across 20 states and Washington, D.C. These hate groups are comprised of individuals who actively fight against the gay rights movement through acts such as defamation, crude name-calling, disseminating false information about LGBT orientations and lifestyles, and holding anti-gay rallies and protests (Southern Poverty Law Center, 2013).

Additionally, public sexual stigma can take the form of negative attitudes held by others toward sexual minorities. In 2011, one study found that 43% of college student participants were moderately-to-highly biased against lesbians and gay men (Rutledge, Siebert, Siebert, & Chondoy, 2011). Similar results were found for bisexuals, with 42% of participants at a Mid-Western college scoring mild to severe on a measure of biphobia (Mulick & Wright, 2002). Other studies have found overall negative attitudes toward lesbians and gay men held in a sample of college students (Chondoy, Siebert, & Rutledge, 2009) and the general population (Herek & Capitanio, 1996). Attitudes toward bisexuals are even less favorable than attitudes toward lesbians or gay men in the general population (Herek, 2002). More recently, it has been suggested from a study of college students that modern homophobia exists in terms of ambivalent attitudes toward lesbians and gay men contrasted with positive attitudes toward heterosexuals (Breen & Karpinski, 2013). These more negative attitudes toward sexual minorities lead LGB individuals to exist in a world where they face stigmatization on a regular basis. This stigmatization can be a major life stressor that can lead to negative physical and mental health outcomes, as suggested by minority stress theory (Meyer, 1995; Meyer, 2003).

Given the complexity of the stigma construct, a narrow definition was used to guide the present thesis. Specifically, this paper focuses on perceived public stigma related to sexual minority identity. Thus, this examination involves assessing the perceptions held by individuals who have self-identified as LGB that others stigmatize them or treat them differently due to their sexual minority identity (adapted from Mickelson & Williams, 2008).

Sexual Stigma and Minority Stress Theory

Sexual stigma and its effects on sexual minorities also have been described in terms of minority stress, or the psychological stress that comes from having minority status (or from

being stigmatized). Minority stress is (a) unique – it is above and beyond the stressors that exist in everyday life, (b) chronic, and (c) socially based. Further, it exists along a continuum of distal stressors (objective) to proximal stressors (subjective). For sexual minorities, distal stressors include actual prejudice and discrimination events that occur because of the person's sexual orientation, such as being fired from a job for being gay (similar to the public sexual stigma which is the focus of this thesis), whereas proximal stressors are related to self-identification as LGB and include fear of rejection because of sexual orientation and internalized homophobia (Meyer, 2003). In most current conceptualization of minority stress theory, Meyer (2003) described minority stress as including the original three processes of internalized stigma, expectations of rejection or discrimination, and actual prejudice events (Meyer, 1995), and a fourth process, concealment. In terms of sexual minority individuals, concealment occurs by staying “in the closet” and not “coming out” as LGB to those around them. For the present thesis, I focus on public stigma, or the distal stressor of actual prejudice experiences, given more proximal stressors are consequences of self-identification as LGB (Meyer, 2003).

Especially relevant for the present thesis, the outcomes of minority stress include negative mental and physical health outcomes. Although this study does not address internalized stigma, the possible negative outcomes of internalized stigma will be discussed here given that internalized stigma is a consequence of public stigma through the acceptance and integration of public concepts about one's identity (Herek, Gillis, & Cohan, 2009). Considering mental health first, internalized homophobia, perceived stigma, and prejudice events have all been found to significantly predict psychological distress outcomes including demoralization and guilt (Meyer, 1995). Meyer's model proposed that all self-identified sexual minorities experience this minority stress. Furthermore, Meyer (2003) found that lesbian, gay, and bisexual individuals had a higher

prevalence of mental disorders such as depression, anxiety, substance abuse disorders, and suicidal ideation than heterosexual individuals. LGB individuals were 2.5 times more likely to have had a mental disorder in their lifetime and were at a higher risk for suicide ideation and attempts starting as early as high school. He also reported that: (1) crimes that occurred against LGB individuals because of their sexual orientation had a greater mental health impact than non-antigay based crimes, (2) anticipated social rejection was predictive of psychological distress, and (3) concealment is an important source of stress for sexual minorities. Further, he suggested that LGB individuals maintain varying degrees of internalized homophobia from their early lives and that this can lead to mental health problems.

Experiencing more prejudice, having higher expectations of rejections, and facing more frequent discrimination than other like-others are associated with experiencing health problems for sexual minorities. Higher levels of internalized homophobia were also associated with worse physical health (Frost, Lehavot, & Meyer, 2013). Frost (2011) outlined several negative health outcomes of stigma-related stressors, including worse mental health outcomes, poorer physical health including decreased access to and quality of medical care, and increased risk behaviors such as risky sexual behavior and smoking than those who are not stigmatized. Similarly, Major and O'Brien (2005) reported stigmatized individuals such as sexual minorities experience poor mental health, physical health problems, and higher rates of infant mortality.

Chaudoir et al. (2013) proposed a model suggesting that public stigma is a causal agent of health disparities and a vital social determinant of health and health disparities. Additionally, they indicated that sexual minorities face barriers to good mental and physical health due to the sociocultural, interpersonal, and individual outcomes of public stigma that lead to poor health behaviors, stress, and biological changes. Hatzenbuehler, Phelan, and Link (2013) also have

stated that stigma is a fundamental cause of health disparities. Given that sexual minorities experience stigma, all of these stigma-related experiences and health costs apply to sexual minorities.

In addition to physical and mental health and related costs, other outcomes are influenced by stigmatization. In a discussion of 'life as a sexual minority', individuals indicated that stigma deprived them of access to opportunities, as well as safety and acceptance (Meyer, Ouellette, Haile, & McFarlane, 2011). Increased absence from school and poor academic achievement, worse job performance and lower job satisfaction, decreased relationship quality, lower social status and income, and reduced access to resources such as housing, education, and jobs have been reported as possible outcomes of living with a stigmatizing identity (for reviews of literature see Frost, 2011 and Major & O'Brien, 2005).

Identity as a Buffer

Despite all of the possible negative outcomes of minority stress, some individuals may not experience them. Indeed, some stigmatized individuals do not suffer from negative mental health outcomes and lower self-esteem as much as others with similar identities (Carter & Reynolds, 2011; Mossakowski, 2003; Sellers et al., 2003). It has been hypothesized that identifying with like others and gaining support from those individuals may serve as a buffer to the negative outcomes of stigmatization (Frost, 2011; Major & O'Brien, 2005; Meyer, 2003). Meyer (2003) mentions that minority status can not only be associated with stress, but also with group solidarity and cohesiveness, which can protect minority group members against the negative mental health effects of minority stress. Major and O'Brien (2005) report that group identification is positively correlated with self-esteem for those who have a stigmatizing aspect of their identity. Racial minority members, for example, are more likely to compare themselves

to like others than to members of the majority culture, which may aide in protecting self-esteem (Meyer, 2003).

Although the minority stress model entertains possible moderating processes such as social support, coping, and characteristics of minority identity (prominence, valence, and integration; Meyer, 2003), Meyer describes characteristics of minority identity as moderating the relationship between *proximal* minority stress process (e.g., internalized homophobia, concealment, and expectations of rejection) and mental health outcomes, but not between *distal* minority stress processes (e.g., public stigma) and mental health outcomes. In contrast, Hatzenbuehler (2009) argued that identity characteristics are not moderators at all, but rather direct predictors of perceptions of distal minority stress (e.g., objective prejudice events) and general psychological processes (e.g., coping, social interaction, and cognitive processing), in turn enhancing or reducing the relationships these outcomes have with mental health outcomes. In the present thesis, I propose a model in which characteristics of sexual minority identity directly moderate the relationship between *distal* minority stress processes and mental health outcomes (see Figure 2). This thesis focuses on *distal* minority stress processes rather than *proximal* minority stress processes, given the model by Meyer (2003) that outlines the *distal* process of public stigma as having an impact on the *proximal* processes of internalized stigma, concealment, and expectations of rejection and information about the internalization of stigma occurring *after* the experience of negative views from the public (Herek et al., 2009). Additionally, the coping mechanisms of identity outlined by Major and O'Brien (2005) are in response to *public* forms of stigma. While internalized stigma likely interacts with identity characteristics, it is probable that this relationship is changed by the nature of the connection between identity characteristics and public stigma. A further exploration of identity

characteristics and internalized stigma is beyond the scope of this thesis. In spite of these theoretical contributions, no research has examined these ideas directly in sexual minorities. As a result, this thesis draws from literature on identity of ethnic minorities, especially Black individuals. This literature is reviewed to provide direction on examining identity constructs in sexual minorities.

Learning From Ethnic Identity Theory. Similar to the characteristics of minority identity outlined in the minority stress model (Meyer, 2003), the Multidimensional Model of Racial Identity (MMRI) outlines the identity constructs of salience, centrality, regard, and ideology (Sellers, Smith, Shelton, Rowley, & Chavous, 1998). *Salience* (in terms of the MMRI) refers to how relevant one's race is to their concept of self in a particular situation; given the situational nature of salience, it is often not assessed. *Centrality* is the concept of how important one's minority identity is to their concept of self. There are two types of regard: private and public. *Private regard* deals with how a person views their own minority group (e.g., how a Black individual views Black people). *Public regard* assesses how a person thinks other people view their minority group (e.g., how a Black individual thinks others view Black people). *Public regard* differs from *public stigma* by its relation to the participant: *public regard* is the belief the participant holds about how society as a whole views their minority group, whereas *public stigma* is how the participant has been personally treated by members of society because of their minority status. *Ideology* is broken into four key concepts: assimilation (e.g., assimilation into majority culture), humanist (e.g., Blacks' values should not be inconsistent with human values), oppressed minority (e.g., there are similarities between Blacks and other oppressed groups), and nationalist (e.g., Blacks should do their best to support Black culture, businesses, and individuals).

In terms of research conducted on private regard and ideology, Carter and Reynolds (2011) reported that racial identity can impact the relationship between race-related stress (e.g., cultural, institutional, and individual racism) and emotional and mood states recently experienced for Black individuals and help them deal with the negative effects of racism and discrimination. They found in their study of a general sample of Black American adults that those who attempted to conform to dominant culture (thereby devaluing their Black identity, indicating lower nationalism and more negative private regard) reported more anger, depression, confusion, fatigue, and tension, which likely occur in part due to discrimination experiences. They also found that those who had a positive commitment to their Black identity had less intense emotional reactions to racism events. An attempt to integrate into dominant culture at the cost of Black culture indicates weak nationalism and more negative private regard for one's racial identity. An additional study of Black college students that looked at the influence of racial identity on the relationship between racial discrimination and depressive symptoms showed that Black individuals who attempted to integrate with the majority culture instead of identifying with Black culture had greater depressive symptoms when instances of discrimination occurred (Banks & Kohn-Wood, 2007), implying that identification with Black culture may moderate the relationship between discrimination events and depressive symptoms. Furthermore, a study of African American parents found that those with higher private regard and higher nationalist ideology were more likely to participate in racial socialization, wherein they raise their children to have positive self-concepts despite being in an environment that is racist and possibly hostile (Thomas, Speight, & Witherspoon, 2010). This research may have implications for the minority stress levels of the children these parents are raising. Although these studies do not explicitly test

moderation, the exploration of identity in its relationship to stigma (e.g., discrimination, prejudice) and negative mental health outcomes strongly implies a moderation framework.

In another study examining private regard only, Sellers, Copeland, Linder, Martin, and Lewis (2006) outlined the relationship between racial discrimination (81% of Black adults reported experience of at least one incident of day-to-day racism) and psychological outcomes, essentially indicating that all racial minorities experience stigma. They aimed to examine the relationship among racial discrimination, racial identity, and psychological functioning in adolescent African-American students with the theory that any psychological dysfunction is likely impacted by racial discrimination. They found that those with more positive private regard had less depressive symptoms, less perceived stress, and higher positive well-being (Sellers et al., 2006). Another study of African American high school students found that private regard was related to lower levels of perceived stress (Caldwell, Zimmerman, Bernat, Sellers, & Notaro, 2002). While this is only a direct effect, given the outlined relationship of racial discrimination and psychological outcomes (Sellers et al, 2006) and Meyer's minority stress model (2003), it is likely that the private regard is impacting stress that is related to minority identity.

When addressing centrality in terms of direct and indirect effects, one study found in a sample of African-American young adults that those who reported more central racial identity were more likely to report lower psychological distress. They also found that centrality and public regard had an indirect effect on psychological distress through discrimination and perceived stress (Sellers et al., 2003).

Additional studies have found similar results in other ethnic communities. One study of a community sample of Filipino-Americans showed (1) that higher levels of ethnic identification was significantly associated with lower levels of depressive symptoms; (2) that ethnic identity

buffered the stress of having ever experienced racial/ethnic discrimination, as well as buffering against cumulative lifetime discrimination; and (3) that ethnic identity was linked to reduced stress from perceived racial discrimination (Mossakowski, 2003). A study of Asian Pacific Islander American students found that private regard negatively predicted anxiety, as well as moderated the relationship between stereotype confirmation concern and anxiety. Centrality also moderated the relationship between own-group conformity pressure and anxiety (French, Tran, & Chávez, 2013). Similar results were found in the Latino community, where depression was negatively correlated with centrality and public regard in a Latino college sample. Centrality also moderated the relationship between stereotype confirmation concern (the concern that behaviors will match preconceived ideas about Latinos and reinforce negative stereotypes) and depression. They found that overall centrality and public regard were most protective of well-being and that having a central identity and believing that Latinos were good were associated with lower levels of depression (French & Chavez, 2010).

While the relationship between identity and better mental health and higher self-esteem has been predominately found in ethnic minorities, it also been shown in limited studies of other stigmatized groups. One study examined whether making attributions of negative events to external factors (e.g., racism, bad breath) was effective for protecting self-esteem or whether strong and meaningful group identification was necessary to protect self-esteem. They induced group identity in one group by having participants eat garlic (thereby identifying with others who had eaten garlic and therefore had bad breath) while other participants were already part of a meaningful group (in this case, women) and then were rated poorly in terms of social interaction by a confederate. They found that inducing group identity did not act as a buffer for self-esteem on its own, even when placing blame for a negative evaluation on an external event (those who

ate garlic did not benefit by identifying with others who ate garlic and blaming the evaluation on bad breath). However, when the participants were actually part of a meaningful group (in this case, women) and placed blame for negative evaluations on external factors (i.e., sexism), they had higher self-esteem than those who did not have meaningful group identity (Crandall, Tsang, Harvey, & Britt, 2000). Bat-Chava (1994) also found in a survey study of deaf adults that those who identified more strongly with their group (i.e., deaf individuals) had higher self-esteem.

Summary and Application of Identity to Sexual Minorities. Centrality, regard, and ideology are key aspects to identity that have been assessed in minority groups. The (mostly ethnic minority) literature has shown that higher centrality, more positive private and public regard, and having stronger nationalism can be directly related to more positive mental health outcomes, or can moderate the relationship between public stigma (e.g., racism, objective prejudice events, perceived negative evaluation based on personal characteristics) and negative mental health outcomes. However, not much support was found for the humanist and oppressed minority sub-constructs of ideology. An assumption of the present thesis is that these identity constructs may play a similar direct or moderating role for many minority groups, including sexual minorities, who experience public stigma.

For sexual minorities, *centrality* is how important one's sexual orientation is to their concept of self. *Private regard* is how a sexual minority individual views sexual minorities. *Public regard* is how a sexual minority individual thinks other people view sexual minorities. *Nationalist ideology* reflects the valuing and supporting of homosexual culture, businesses, and individuals. While *oppressed minority ideology* was not discussed in the literature, I believe theoretically that oppressed minority ideology may have a large impact on psychological distress outcomes for sexual minorities, given that oppressed minority ideology likely promotes common

ground with other oppressed minorities and increases social support. While humanist ideology would address how homosexual values should not be inconsistent with human values, this construct did not have enough support in the literature to be examined. Assimilation ideology will also not be assessed given the poor relation to sexual orientation experience assessed in the wording of the questions and the ambiguity of “gay culture” versus “straight culture”.

These identity constructs may play a role in the experience of sexual stigma and promote more positive outcomes. For example, centrality and regard may create a strong sense of community and foster social support within minority communities. In this way, these identity characteristics might engender positive aspects of sexual minority identity, in addition to providing social support, thereby reducing the potential impact of public stigma on sexual minorities and protecting self-esteem. Although those with concealable stigmas, such as sexual orientation, do report more positive self-perceptions and higher well-being when in an environment with similar others (Meyer, 2003), for sexual minority individuals with less central identities - bonding with like-others - may be more difficult due to concealment (i.e., remaining “in the closet”). Nationalist ideology and oppressed minority ideology may also protect sexual minorities from negative outcomes because they promote common ground with other oppressed minorities and may uphold the importance of gay culture and supporting other gay individuals, which is a likely mechanism for aiding against negative mental health outcomes and allowing that support to bolster self-esteem.

Current Study

Based on the relationships between identity characteristics, stigma, and psychological distress found in the literature, this thesis aimed to assess both the direct and moderating roles of identity characteristics in relation to mental health outcomes of stigma among those who identify

as lesbian, gay, or bisexual. I addressed this aim by conducting secondary data analysis on an existing data set of sexual minorities. In the existing data, identity was represented in terms of regard (e.g., how a person feels regarding others of the same sexual orientation, how a person views the feelings of others regarding people of their sexual orientation), centrality (e.g., how important a person's sexual orientation is to their sense of self), and ideology (e.g., what philosophies does a person hold regarding how sexual minorities should live and interact with other sexual minorities). The negative mental health outcome of psychological distress was represented in the existing data, which is in-line with Meyer's (2003) model of minority stress as well as Hatzenbuehler's (2009) integrative mediation framework that has internalized and externalized psychopathology as the outcomes of stigma-related stressors. Furthermore, self-esteem was represented in the data as a positive mental health outcome, which is in-line with studies discussed above showing identity acted as a buffer against negative mental health outcomes and predicted more positive outcomes. Finally, the perceived public form of sexual stigma was examined in relation to negative mental health outcomes and is in-line with the models created by Meyer (2003) and Hatzenbuehler (2009).

Given the literature review above, hypotheses of the present thesis were: (H1A) LGB individuals who reported higher levels of centrality, more positive public and private regard, stronger oppressed minority ideology, and stronger nationalist ideology would have reported lower psychological distress than those who reported lower centrality, more negative public and private regard, weaker oppressed minority ideology, and weaker nationalist ideology; (H1B) LGB individuals who reported higher levels of centrality, more positive public and private regard, stronger oppressed minority ideology, and stronger nationalist ideology would have reported higher self-esteem than those who reported lower centrality, more negative public and

private regard, weaker oppressed minority ideology, and weaker nationalist ideology (see Figure 1 for H1A and H1B); (H2A) centrality, public regard, private regard, oppressed minority ideology, and nationalist ideology would moderate the relation between perceived public sexual stigma and psychological distress, such that those who had higher levels of centrality, less negative public and private regard, stronger oppressed minority ideology, and stronger nationalist ideology would be less impacted by public stigma and therefore show a weaker relation between public stigma and psychological distress than those who reported lower centrality, less positive public and private regard, weaker oppressed minority ideology, and weaker nationalist ideology; (H2B) centrality, public regard, private regard, oppressed minority ideology, and nationalist ideology would moderate the relation between perceived public sexual stigma and self-esteem, such that those who had higher levels of centrality, less negative public and private regard, stronger oppressed minority ideology, and stronger nationalist ideology would be less impacted by public stigma and therefore show a weaker relation between public stigma and self-esteem than those who reported lower centrality, less positive public and private regard, weaker oppressed minority ideology, and weaker nationalist ideology (see Figure 2 for H2A and H2B).

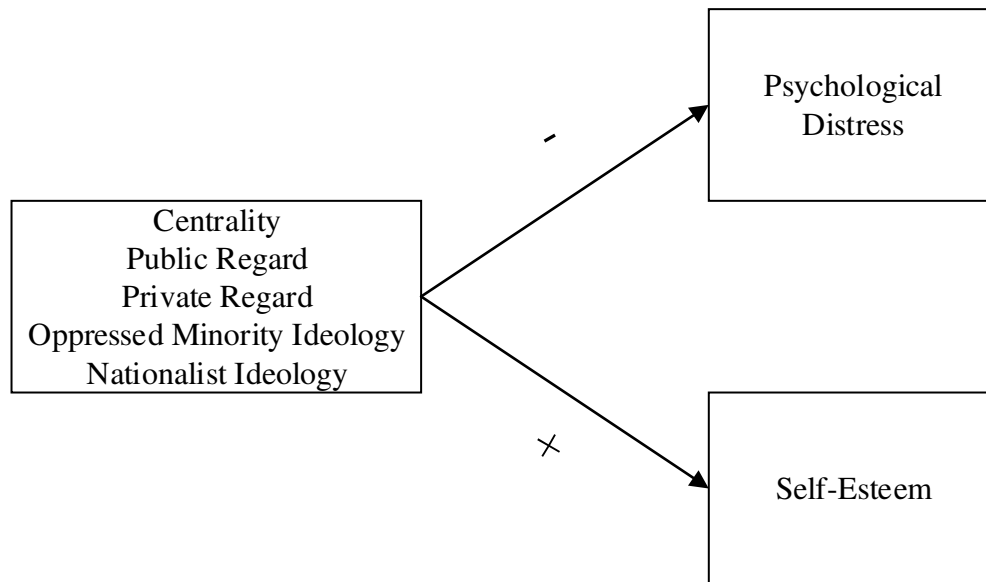


Figure 1. Proposed Relationship Between Identity Characteristics and Outcomes

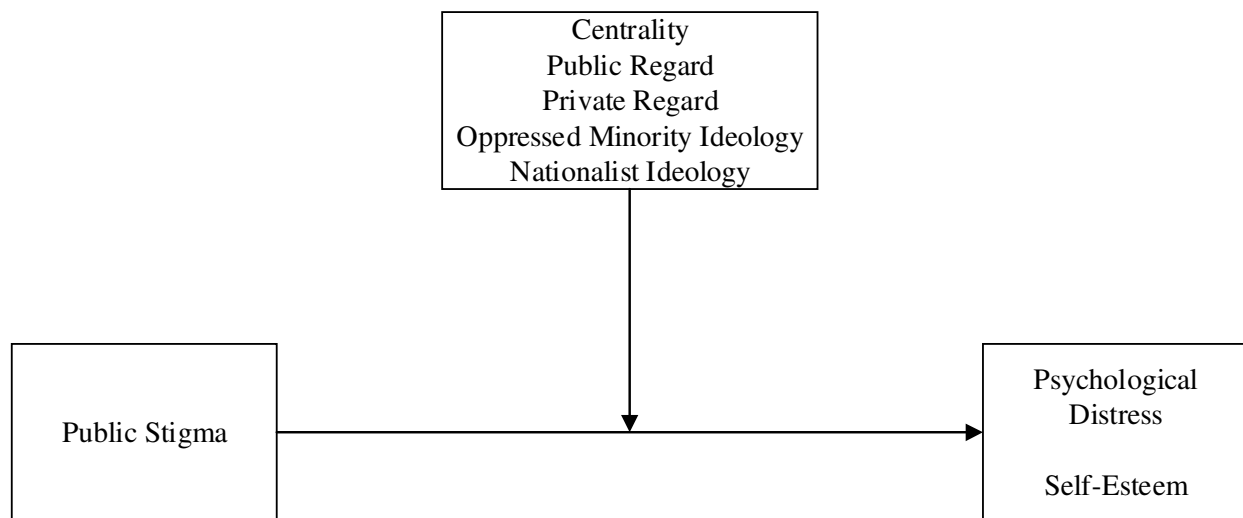


Figure 2. Proposed Moderation of Identity Characteristics Between Public Stigma and Psychological Outcomes

CHAPTER 2

METHOD

Participants

Participants were recruited using various methods including flyers in public areas and East Tennessee State University's SONA system. Additionally, over 600 LGB-focused organizations, such as college gay-straight alliances and PFLAG (Parents, Families and Friends of Lesbians and Gays) chapters, were contacted across the United States. Those who completed the study at East Tennessee State University were given modest course credit for completion of the study. Individuals who completed the survey but did not attend East Tennessee State University received no compensation. The online and anonymous survey took approximately 45 minutes to complete. Overall, 1,725 people completed the survey; however, only those who self-identified as gay, lesbian, or bisexual were used in the present thesis ($N=380$). However, examination of the data led to the deletion of 171 participants who did not complete the scales necessary for analysis, leaving us with a total of 209 participants (lesbians, $n=47$; gay men, $n=75$; bisexual women, $n=70$, bisexual men, $n=17$). The participants who were removed from analysis were compared on a variety of variables with those who remained in the analysis; the included participants varied only in that they were more likely to be college students than those who were removed from analysis ($\chi^2=9.40$, $p=.002$).

Materials

Demographics. Demographic information collected on each participant included sex, age, race (minority versus majority), sexual orientation, education (number of years), and current college student status.

Kessler Psychological Distress Scale (K-10). *The Kessler Psychological Distress Scale* (Kessler et al., 2002), commonly known as the K-10, is a 10-item scale that assesses distress over the past month with items about anxiety (e.g., “About how often did you feel so nervous that nothing could calm you down?”) and depression (e.g., “About how often did you feel hopeless?”) on a 5-point scale (0=*None of the time*, 4=*All of time*). Mean scores were calculated prior to analysis with higher scores indicating higher psychological distress ($\alpha=.93$).

Rosenberg Self-Esteem Scale. *The Rosenberg Self-Esteem Scale* (Rosenberg, 1965) is a 10-item scale that assesses self-esteem on a 4-point scale (1=*Strongly Agree*, 4=*Strongly Disagree*). Items include “I feel that I have a number of good qualities” and “I feel that I’m a person of worth”. Mean scores were calculated after reverse coding, so that higher scores indicated higher self-esteem ($\alpha=.91$).

Multidimensional Inventory of Black Identity (adapted). *The Multidimensional Inventory of Black Identity* (MIBI) was originally created to assess racial identity on three scales: regard, centrality, and ideology (Sellers, Rowley, Chavous, Shelton, & Smith, 1997). The version of the scale used for this study was adapted to be used for sexual minority identity. All items are on a 7-point scale (1=*Strongly disagree*, 7=*Strongly agree*). The regard scale was broken into public (e.g., overall, my sexual orientation is considered good by others) and private (e.g., I feel good about my sexual orientation) regard subscales. The centrality scale assessed how central sexual orientation is to a person’s sense of self (e.g., In general, my sexual orientation is an important part of my self-image). The ideology scale was broken into four subscales: assimilation (e.g., homosexuals should strive to be full members of the American political system), humanist (e.g., homosexuals’ values should not be inconsistent with human values), oppressed minority (e.g., the same forces which led to the oppression of homosexuals have also

led to the oppression of other groups), and nationalist (e.g., whenever possible, homosexuals should buy from other homosexual businesses). For the purpose of this analysis, the nationalist sub-scale was taken down from six to three items based on deletion suggestions from reliability analysis. The final three-question item likely mapped onto sexual minority experience more accurately than the full six-item scale whose questions were originally intended for racial minorities. The creators of the original scale found it to be reliable and valid (Sellers et al, 1997). Others have also found moderate reliability and validity for other racial minorities (Cokley & Helm, 2001; Simmons, Worrell, & Berry, 2008). Oppressed minority ideology was examined despite the lack of support in racial literature, given the theory that higher oppressed minority ideology will decrease psychological distress by the common ground found with other oppressed groups and the social support this may create. However, given that no support was found for humanist ideology as buffers against negative mental health, this subscale was not assessed. Additionally, given that the assimilation questions likely do not adequately assess this construct for sexual minorities, assimilation ideology was not assessed. Each subscale received a mean score variable and five variables were created: (1) centrality ($\alpha=.83$), (2) public regard ($\alpha=.85$), (3) private regard ($\alpha=.82$), (4) oppressed minority ideology ($\alpha=.86$), and (5) nationalist ideology ($\alpha=.72$). Higher scores indicate more central identity, more positive public regard, more positive private regard, stronger oppressed minority ideology, and stronger nationalist ideology. An overall identity variable was not created.

Perceived Stigma Scale. A version of the Perceived Stigma Scale (Mickelson, 2001) was adapted to assess perceived stigma related to sexual orientation. Participants were asked to indicate how much they agreed with eight statements regarding feelings and emotions they may have had related to their minority status on a 5-point scale (1=*Definitely Disagree*, 5=*Definitely*

Agree). The items tap into two different dimensions of stigma: internalized stigma (e.g., “There have been times when I have felt ashamed because of my sexual orientation”) and public stigma (e.g., “People have treated me differently because of my sexual orientation”). However, for the purpose of this study, only the public stigma subscale was assessed. Mean scores were calculated prior to analysis ($\alpha=.86$).

CHAPTER 3

ANALYSIS PLAN

First, demographic variables of sex, age, race, level of education, and current college status were explored as possible covariates using bivariate correlations to examine the relationships these variables have with the outcome variables of psychological distress and self-esteem. Additionally, comparisons were done to compare main study variables between homosexual and bisexual participants to determine whether sexual orientation should also be entered as a covariate.

To test my hypotheses, hierarchical moderated regression was used. Centrality, public regard, private regard, oppressed minority ideology, nationalist ideology, and perceived public stigma were centered by subtracting the mean value for each of these predictors from individual scores. This procedure was done to decrease the likelihood of multicollinearity between the variables and the interaction terms. After centering, an interaction term was created between perceived public stigma and each identity characteristic. Psychological distress and self-esteem separately were simultaneously regressed onto centrality, public regard, private regard, oppressed minority ideology, nationalist ideology, and perceived public stigma, with all predictors and interaction terms entered into the second block, with any possible covariates entered in the first block. Statistically significant ($p < .05$) regression coefficients for the block-2 predictors represent significant main effects (hypotheses 1). A significant ΔR^2 of the interaction terms indicates a significant moderating effect of the identity characteristics (hypothesis 2). Any significant interactions were explored using a decomposition program.

CHAPTER 4

RESULTS

First, demographic variables of sex, age, race, level of education, and current college status were explored as possible covariates. Bivariate correlations were run between these variables and the outcome variables of psychological distress and self-esteem. It was found that sex, age, and level of education were all significantly correlated with psychological distress and therefore were retained as covariates in all analyses with psychological distress as the outcome. It was also found that age and level of education were significantly correlated with self-esteem and therefore were retained as covariates in all analyses with self-esteem as the outcome.

Additionally, initial comparisons were done to compare main study variables between different sexual orientations (homosexual versus bisexual). These analyses found that bisexuals reported lower levels of public stigma, less positive private regard, lower centrality of their sexual orientation, and weaker oppressed minority ideology (see Table 1). Therefore, sexual orientation was entered as a covariate for all analyses. Table 2 presents zero-order correlations among the main study variables of interest (public stigma, public regard, private regard, centrality, oppressed minority ideology, nationalist ideology, self-esteem, and psychological distress).

Table 1.

Differences in Main Study Variables Within Sexual Minority Subgroups (N = 209)

	Homosexual	(<i>n</i> = 122)	Bisexual	(<i>n</i> = 87)		
Variable	M	<i>SD</i>	M	<i>SD</i>	<i>t</i>	<i>p</i>
Predictors						
Public Stigma	3.61	1.15	2.91	1.05	4.52	<i>p</i> <.001
Private Regard	6.24	1.15	5.97	1.05	2.01	<i>p</i> =.046
Public Regard	3.42	1.12	3.29	1.33	0.77	<i>p</i> = .440
Centrality	4.23	1.32	3.62	1.15	3.45	<i>p</i> = .001
Oppressed	6.01	0.74	5.73	0.97	2.40	<i>p</i> = .017
Minority						
Nationalist	4.52	1.35	4.37	1.38	0.82	<i>p</i> =.414
Outcomes						
Self-Esteem	3.27	0.57	3.15	0.56	1.41	<i>p</i> = .160
Psychological	20.84	8.36	22.16	7.62	-1.16	<i>p</i> = .246
Distress						

Table 2.

Zero-Order Correlations Among Variables of Interest (N=209)

	1	2	3	4	5	6	7	8
1. Public Stigma	---	-.05	.12	.07	-.42**	.39**	.26**	.26**
2. Self-Esteem	---	---	-.72**	.35**	.22**	.20**	.02	.10
3. Psychological Distress	---	---	---	-.25**	-.22**	-.19**	-.01	.04
4. Private Regard	---	---	---	---	.18*	.26**	.26**	.22**
5. Public Regard	---	---	---	---	---	-.03	-.22**	-.13
6. Centrality	---	---	---	---	---	---	.24**	.39**
7. Oppressed Minority	---	---	---	---	---	---	---	.36**
8. Nationalist	---	---	---	---	---	---	---	---

Note. * $p < .05$ ** $p < .01$

Before performing analyses, a power analysis via a custom R script was used to determine the minimum detectable effect sizes (regression slope coefficients) for each of the eleven effects of interest (public stigma, centrality, public regard, private regard, oppressed minority ideology, nationalist ideology, and the interactions of the identity characteristics with public stigma) that would maintain an acceptable degree of power for the set of tests of the effects. In other words, how much statistical power is required for an individual effect in order for the simultaneous test of the eleven predictors to have a reasonable chance of producing no Type-II errors, or at worst a small number of them? The individual effects were determined via the custom R script to require a minimum power of 93%, implying an effect size of $\beta=0.238$ or higher for each effect as determined with the G*Power program, in order for the regression model to have a high likelihood of detecting all eleven effects of interest, should they be present.

Table 3 displays the main (H1A) and moderating (H2A) effects of the predictor variables on psychological distress. All tolerance and variance inflation factor statistics were within the acceptable range. Predictor variables of identity characteristics and public stigma accounted for 13.1% of variance in psychological distress, with the interactions between public stigma and identity characteristics accounting for an additional 3.5% of variance. H1A was partially supported: public stigma ($b=1.38$, $SEB=.551$, $p=.013$), centrality ($b=-1.31$, $SEB=.487$, $p=.008$), and private regard ($b=-1.43$, $SEB=.618$, $p=.022$) significantly predicted psychological distress, such that lower reported public stigma, higher centrality of sexual orientation identity, and more positive private regard predicted lower levels of psychological distress. Although I did not explicitly hypothesize that public stigma would directly predict psychological distress, the main effect is important in the absence of the interaction. Contrary to H1A, nationalist ideology significantly predicted greater psychological distress ($b=0.92$, $SEB=.440$, $p=.037$). H2A was not

supported as none of the interactions between public stigma and the identity variables were significant.

Table 4 displays the main (H1B) and moderating (H2B) effects of the predictor variables on self-esteem. All tolerance and variance inflation factor statistics were within the acceptable range. Predictor variables of identity characteristics and public stigma accounted for 12.9% of variance in self-esteem, with the interactions between public stigma and identity characteristics accounting for an additional 2.6% of variance. H1B was partially supported: private regard significantly predicted self-esteem ($b=1.55$, $SEB=.043$, $p<.001$), such that more positive private regard predicated higher levels of self-esteem. H2B was partially supported: the interaction between public stigma and centrality was significant ($b=0.05$, $SEB=.027$, $p=.048$). A decomposition program based on Aiken and West (1991) that examined the slope of self-esteem at high and low levels of centrality (one standard deviation above and below the mean, respectively) was used to examine this interaction. The decomposition analysis showed that centrality moderated the relationship between public stigma and self-esteem, such that public stigma was related to poorer self-esteem when identity was less central. By contrast, for those who reported higher centrality, public stigma was not significantly predictive of self-esteem. Additionally those with higher centrality had higher levels of self-esteem overall, indicating that centrality of identity may buffer against public stigma when it comes to self-esteem (see Figure 3).

Table 3.

Sequential Regression Analysis Summary for Variables Explaining Psychological Distress

Variable	B	SEB	β	R^2	ΔR^2
Model 1				.062	
Sex	1.91	1.12	.12		
Age	-0.14	.06	-.21*		
# of Years Education	-0.08	.21	-.03		
Model 2				.170	.131***
Sex	1.62	1.07	.10		
Age	-0.14	.05	-.21**		
# of Years Education	-0.09	.21	-.04		
Public Stigma	1.38	.55	.20*		
Centrality	-1.31	.49	-.21**		
Public Regard	-0.66	.51	-.10		
Private Regard	-1.43	.62	-.17*		
Oppressed Minority	0.12	.69	.01		
Nationalist	0.92	.44	.16*		
Model 3				.185	.035
Sex	1.67	1.08	.10		
Age	-0.14	.05	-.21**		
# of Years Education	-0.08	.21	-.03		
Public Stigma	1.42	.56	.20*		
Centrality	-1.06	.50	-.17*		
Public Regard	-0.76	.52	-.11		
Private Regard	-1.50	.64	-.17*		
Oppressed Minority	0.35	.69	.04		
Nationalist	0.69	.45	.12		
Public Stigma x Centrality	-0.75	.39	-.14		
Public Stigma x Public Regard	-0.47	.38	-.09		
Public Stigma x Private Regard	-0.13	.54	-.02		
Public Stigma x Oppressed Minority	0.05	.58	.01		
Public Stigma x Nationalist	0.64	.37	.13		

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 4.

Sequential Regression Analysis Summary for Variables Explaining Self-Esteem

Variable	B	SEB	β	R^2	ΔR^2
Model 1				.084	
Age	0.01	.00	.29**		
# of Years Education	0.01	.01	.04		
Model 2				.190	.129***
Age	0.01	.00	.24**		
# of Years Education	0.00	.01	.01		
Public Stigma	-0.05	.04	-.12		
Centrality	0.06	.03	.14		
Public Regard	0.05	.04	.11		
Private Regard	0.16	.04	.26***		
Oppressed Minority	-0.05	.05	-.07		
Nationalist	-0.00	.03	-.01		
Model 3				.197	.026
Age	0.01	.00	.24**		
# of Years Education	0.00	.01	-.01		
Public Stigma	-0.06	.04	-.12		
Centrality	0.05	.03	.11		
Public Regard	0.05	.04	.11		
Private Regard	0.15	.04	.25***		
Oppressed Minority	-0.60	.05	-.09		
Nationalist	0.02	.03	.04		
Public Stigma x Centrality	0.05	.03	.14*		
Public Stigma x Public Regard	0.03	.03	.09		
Public Stigma x Private Regard	-0.02	.04	-.05		
Public Stigma x Oppressed Minority	0.04	.04	.07		
Public Stigma x Nationalist	0.04	.03	-.12		

* $p < .05$, ** $p < .01$, *** $p < .001$

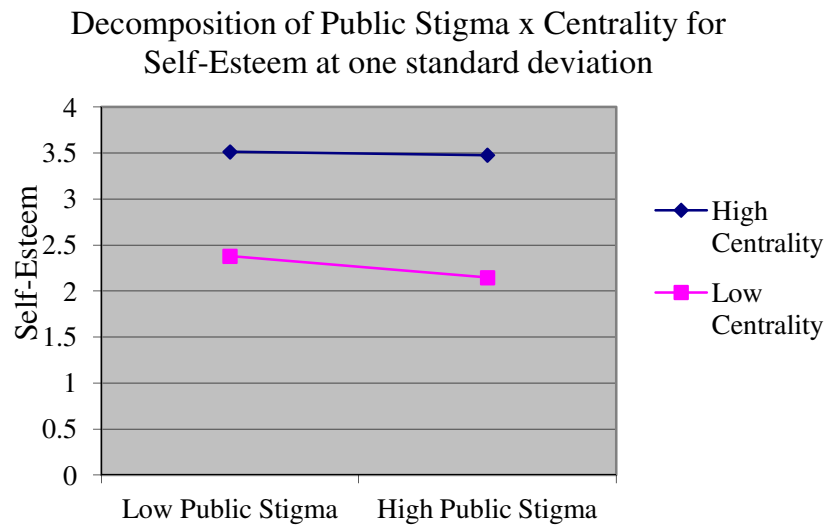


Figure 3. Decomposition of Moderation of Centrality Between Public Stigma and Self-Esteem

CHAPTER 5

DISCUSSION

Sexual minority individuals face stigmatization and from this experience a unique and chronic stress called minority stress, which can lead to negative mental and physical health outcomes (Frost, 2011; Meyer, 1995; Meyer, 2003). However, not all sexual minorities experience negative outcomes in the face of stigma (Cochran et al., 2003; Savin-Williams, 2001). Therefore, I set out to examine the identity characteristics that have been explored in research surrounding racial stigma as potential protective factors against the negative mental health outcomes of sexual stigma. This study set out to define the relationship that public stigma and psychological outcomes of that stigma have with identity characteristics. Based on the literature in racial minority experience, it was hypothesized that identity characteristics would directly predict psychological outcomes, such that those with more positive identity characteristics would have lower distress and higher self-esteem. Additionally, it was hypothesized that identity characteristics would moderate the relationship between public stigma and both psychological distress and self-esteem, such that the distress and self-esteem of those with more positive identity characteristics would be less impacted by public stigma.

Hypotheses surrounding the direct effects of identity characteristics on psychological distress and self-esteem were partially supported. More centrality of sexual minority identity and more positive private regard about one's sexual orientation both predicted lower levels of psychological distress. Additionally, more positive private regard about one's sexual orientation also predicted higher levels of self-esteem. These findings suggest that centrality and private regard may be important factors in the psychological well-being of sexual minority individuals.

Those with high centrality of sexual orientation identity and positive private regard of sexual minority orientation are more likely to have less psychological distress and higher self-esteem.

These findings are in line with the racial literature that outlined centrality and private regard as predictive factors of experiencing less psychological distress, as well as other literature that explored centrality as a predictive factor of self-esteem (Bat-Chava, 1994; Caldwell et al., 2002; French & Chavez, 2010; French et al., 2013; Mossakowski, 2003; Sellers et al, 2003; Sellers et al., 2006). Given that centrality and private regard had the strongest relationships in previous research, as well as in the current study, it is likely that these are the two aspects of minority identity that are important in when it comes to the psychological well-being of sexual minorities. It may be that the other characteristics of nationalism and oppressed minority ideology, while part of minority identity, are not at work in the process of distal minority stress.

Contrary to hypotheses, stronger nationalist ideology predicted *higher* psychological distress. This may be due to the fact that while participants support the idea of nationalism (homosexual individuals should attempt to surround their children with art, music, and literature created by homosexuals; homosexuals should buy from other homosexual businesses; a thorough knowledge of homosexual history is import for homosexuals today), they do not have access to these resources, which could then lead to an increase in psychological distress. It is also possible that an increased awareness of public stigma increases an awareness of the need for these resources; however, that increased public stigma also increases the likelihood of an individual having higher psychological distress. Additionally, nationalist ideology may interact with available resources to impact psychological distress, indicating that future research should examine the possible disparity in beliefs about the world with actions taken by individuals in order to examine nationalist ideology in sexual minorities.

Although no identity characteristics were found to moderate the relationship between public stigma and psychological distress, public stigma and centrality interacted to predict levels of self-esteem, such that those who had lower centrality reported a significant decrease in self-esteem when reporting high public stigma, whereas those who reported higher centrality were not impacted by public stigma in regards to self-esteem. Decomposition analysis showed specifically that low identity centrality was a risk factor, which is line with the racial literature that shows low centrality can have a negative impact on racial minorities' psychological well-being in high stigma situations (Banks & Kohn-Wood, 2007; Carter & Reynolds, 2011; French et al., 2013), as well as that high centrality can weaken the impact of public stigma (Crandall et al., 2000; French & Chavez, 2010).

Why centrality did not moderate the effect of public stigma on distress is unclear. The non-significant findings may be, in part, due to a lack of sufficient power for this study, which may also explain why additional moderating effects for self-esteem were not found as well. Yet, one significant interaction was indicated. Additionally, centrality had a significant direct effect on psychological distress and self-esteem, providing evidence of its potential importance for explaining better outcomes for LGB individuals. Still, the role of identity in buffering the effect of stigma on self-esteem and distress should be the focus of future research. For example, it remains possible that identity characteristics are present, temporally speaking, before and in conjunction with the perception of public stigma, thereby impacting the experience of public stigma rather than differentiating how public stigma links with psychological outcomes. Given the cross-sectional nature of this study, these temporal relations cannot be teased apart.

Overall, findings suggest that centrality and private regard, in addition to public stigma, may play a role in the psychological well-being of sexual minority individuals and may therefore

be areas of focus for future intervention. Given that private regard was predictive of lower psychological distress and higher self-esteem and that centrality was a predictive factor of lower psychological distress and moderated the relationship between public stigma and self-esteem, it may be that clinicians working with lesbian, gay, and bisexual patients can work on creating interventions that target their client's private regard and centrality. For example, Pachankis (2014) has worked with gay and bisexual men and their mental health providers to alter existing cognitive-behavioral interventions to speak directly to minority stress experiences of gay and bisexual men. Similar programs could be developed to foster private regard and centrality of identity in sexual minority populations. Additionally, social resources could be emphasized among sexual minorities as participation in LGB-specific organizations may increase private regard and centrality by fostering a sense of community and affirming one's sexual orientation.

Limitations and Future Directions

Although the present study findings support a relationship between public stigma, some identity characteristics, psychological distress and self-esteem, the cross-sectional design of the study does not allow for confirmation of the temporal relations among these study variables. It is possible that identity characteristics exist before public stigma ever comes into play.

Additionally, identity characteristics could be strengthened or weakened by psychological distress or self-esteem. For example, those who have low global self-esteem may see their sexual orientation as a flaw in themselves or those who have high psychological distress may have overall negative feelings generally, each of which could contribute to more negative private regard. Future work should aim to explore all possible temporal relations among these study variables using more advanced statistical techniques such as structural equation modeling,

collecting longitudinal data, or taking an experimental approach and inducing stigma and identity in a laboratory setting.

Additionally, although the identity and stigma scales that were used for this study have been validated for other populations, they have not been formally validated for sexual minorities. Although the scales were found to have internal reliability within this study, it may be that these scales are not addressing the specific constructs that are being explored given sexual minorities' unique experiences. Future research should work to validate these or similar scales for sexual minorities.

Moreover, the length of time it took participants to complete the study survey may have compromised the integrity of participant responses as there was a fair amount of attrition. This resulted in more college students completing this study as many of them were receiving credit for their time. It is possible that these findings therefore do not generalize to a community sample as identity may relate to psychological well-being and stigma differently in the general population. However, the findings presented in this paper are those after statistically controlling for level of education.

The present study included both homosexual and bisexual and male and female participants in the sample and statistically controlled for sex and sexual orientation. However, it is possible the relationships between the variables of interest changes for different groups of sex or sexual orientation. Given the relatively small sample of bisexual individuals that participated in this study (especially bisexual males), further analysis based on sexual orientation and sex was not possible. Future research should aim to gather information from equally large numbers of lesbian, gay male, bisexual female, and bisexual male participants. Additionally, the sample for this study was generally homogenous in terms of race/ethnicity (with 84.2% of participants

identifying as White). Although the issue of race was not directly relevant to the research question, there is indication in other research that racial identity intersects with sexual orientation in such a way that individuals of different races may experience being a sexual minority differently (Balsam, Molina, Beadnell, Simoni, & Walters, 2011; Kertzner, Meyer, Frost, & Stirratt, 2009; Meyer, Schwartz, & Frost, 2008; Stirratt, Meyer, Oullette, & Gara, 2008). Thus, by having a mostly White sample, I am limited in the generalizability of our findings. Future research should aim to be significantly more inclusive of non-White racial/ethnic identities.

A further limitation is that those who participated in our study likely have overall stronger identity related to their sexual orientation given that the online recruitment strategy for this study largely revolved around electronic advertisement to organizations dedicated to sexual minorities. As a result, those who received information about the study were likely affiliated with an LGBT organization. Future research should attempt to include sexual minorities who may not be as strongly identified with the LGBT community.

Conclusion

Overall, centrality and private regard predict the psychological outcomes of psychological distress and self-esteem, such that those with higher centrality of sexual orientation identity and more positive private regard about sexual minority orientation have lower distress and higher self-esteem. Centrality also interacted with public stigma when it came to self-esteem, indicating that high centrality may be a protective factor against the negative impact that public stigma may have on one's self-esteem. These findings could have implications for the future study of sexual minorities, pointing to the need to further explore centrality and private regard as protective factors against public stigma. These identity characteristics are likely important factors in protecting sexual minorities against the negative mental health outcomes of

public stigma and therefore may speak to a need to develop interventions to increase centrality and private regard of sexual orientation in sexual minorities in an attempt to decrease the likelihood of the development of negative mental health outcomes.

REFERENCES

- Aiken, L.S., & West, S.G. (1991) *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage.
- Andrews, G., & Slade, T. (2001). Interpreting scores on the Kessler psychological distress scale (k10). *Australian and New Zealand Journal of Public Health*, 25(6), 494-497.
- Balsam, K. F., Molina, Y., Beadnell, B., Simoni, J., & Walters, K. (2011). Measuring multiple minority stress: The LGBT People of Color Microaggressions Scale. *Cultural Diversity and Ethnic Minority Psychology*, 17(2), 163-174. doi: 10.1037/a0023244
- Banks, K., & Kohn-Wood, L. P. (2007). The influence of racial identity profiles on the relationship between racial discrimination and depressive symptoms. *Journal of Black Psychology*, 33(3), 331-354. doi: 10.1177/0095798407302540
- Bat-Chava, Y. (1994). Group identification and self-esteem of deaf adults. *Personality and Social Psychology Bulletin*, 20(5), 494-502. doi: 10.1177/0146167294205006
- Blascovich, J. & Tomaka, J. (1991). Measures of self-esteem. In J.P. Robinson, P.H. Shaver, & L.S. Wrightsman (Eds.), *Measures of Personality and Social Psychological Attitudes* (p. 122). San Diego, CA: Academic Press.
- Breen, A. B., & Karpinski, A. (2013). Implicit and explicit attitudes toward gay males and lesbians among heterosexual males and females. *The Journal of Social Psychology*, 153(3), 351-374. doi: 10.1080/00224545.2012.739581
- Caldwell, C., Zimmerman, M. A., Bernat, D., Sellers, R. M., & Notaro, P. C. (2002). Racial identity, maternal support, and psychological distress among African American adolescents. *Child Development*, 73(4), 1322-1336. doi: 10.1111/1467-8624.00474

- Carter, R. T., & Reynolds, A. L. (2011). Race-related stress, racial identity status attitudes, and emotional reactions of Black Americans. *Cultural Diversity and Ethnic Minority Psychology, 17*(2), 156-162. doi: 10.1037/a0023358
- Chaudoir, S. R., Earnshaw, V. A., & Andel, S. (2013). 'Discredited' versus 'discreditable': Understanding how shared and unique stigma mechanisms affect psychological and physical health disparities. *Basic and Applied Social Psychology, 35*(1), 75-87. doi: 10.1080/01973533.2012.746612
- Chonody, J. M., Siebert, D., & Rutledge, S. (2009). College students' attitudes toward gays and lesbians. *Journal of Social Work Education, 45*(3), 499-512. doi: 10.5175/JSWE.2009.200800002
- Cochran, S. D., Sullivan, J., & Mays, V. M. (2003). Prevalence of mental disorders, psychological distress, and mental services use among lesbian, gay, and bisexual adults in the United States. *Journal of Consulting and Clinical Psychology, 71*(1), 53-61. doi:10.1037/0022-006X.71.1.53
- Cohen, S., & Williamson, G. M. (1988). *The social psychology of health*. (pp. 31-67). Newbury Park, CA: Sage.
- Cook, J. E., Arrow, H., & Malle, B. F. (2011). The effect of feeling stereotyped on social power and inhibition. *Personality and Social Psychology Bulletin, 37*(2), 165-180. doi: 10.1177/0146167210390389
- Corrigan, P. (2004). How stigma interferes with mental health care. *American Psychologist, 59*(7), 614-625. doi:10.1037/0003-066X.59.7.614
- Crandall, C. S., Tsang, J., Harvey, R. D., & Britt, T. W. (2000). Group identity-based self protective strategies: The stigma of race, gender, and garlic. *European Journal of Social*

- Psychology*, 30(3), 355-381. doi: 10.1002/(SICI)1099-0992(200005/06)30:3<355::AID-EJSP995>3.0.CO;2-M
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A. G. (2009). Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, 41(4), 1149-1160.
- French, S., & Chavez, N. R. (2010). The relationship of ethnicity-related stressors and Latino ethnic identity to well-being. *Hispanic Journal of Behavioral Sciences*, 32(3), 410-428. doi: 10.1177/0739986310374716
- French, S. E., Tran, N. and Chávez, N. R. (2013), Exploring the effect of in-group and out-group race-related stressors on anxiety among Asian Pacific Islander American students. *Journal of Applied Social Psychology*, 43: E339–E350. doi: 10.1111/jasp.12028
- Frost, D. M. (2011). Social stigma and its consequences for the socially stigmatized. *Social and Personality Psychology Compass*, 5(11), 824-839. doi: 10.1111/j.1751-9004.2011.00394.x
- Frost, D. M., Lehavot, K., & Meyer, I. H. (2013). Minority stress and physical health among sexual minority individuals. *Journal of Behavioral Medicine*, doi: 10.1007/s10865-013-9523-8
- Goffman, E. (1963). *Stigma: Notes on the management of spoiled identity*. (p. 3). New York, NY: Simon & Schuster, Inc.
- Hatzenbuehler, M. L. (2009). How does sexual minority stigma “get under the skin”? A psychological mediation framework. *Psychological Bulletin*, 135(5), 707. doi: 10.1037/a0016441

- Hatzenbuehler, M. L., Nolen-Hoeksema, S., & Dovidio, J. (2009). How does stigma 'get under the skin?': The mediating role of emotion regulation. *Psychological Science*, 20(10), 1282-1289. doi: 10.1111/j.1467-9280.2009.02441.x
- Hatzenbuehler, M. L., Phelan, J. C., & Link, B. G. (2013). Stigma as a fundamental cause of population health inequalities. *American Journal of Public Health*, 103(5), 813-821. doi: 10.2105/AJPH.2012.301069
- Herek, G. M. (2002). Heterosexuals' attitudes toward bisexual men and women in the United States. *Journal of Sex Research*, 39(4), 264-274. doi: 10.1080/00224490209552150
- Herek, G. M. (2007). Confronting sexual stigma and prejudice: Theory and practice. *Journal of Social Issues*, 63(4), 905-925. doi:10.1111/j.1540-4560.2007.00544.x
- Herek, G. M., & Capitanio, J. P. (1996). 'Some of my best friends': Intergroup contact, concealable stigma, and heterosexuals' attitudes toward gay men and lesbians. *Personality and Social Psychology Bulletin*, 22(4), 412-424. doi: 10.1177/0146167296224007
- Herek, G.M., Gillis, J.R., & Cogan, J.C. (2009). Internalized stigma among sexual minority adults: Insights from a social psychological perspective. *Journal of Counseling Psychology*, 56(1), 32-43. doi: 10.1037/a0014672
- Kertzner, R. M., Meyer, I. H., Frost, D. M., & Stirratt, M. J. (2009). Social and psychological well-being in lesbians, gay men, and bisexuals: The effects of race, gender, age, and sexual identity. *American Journal of Orthopsychiatry*, 79(4), 500-510. doi: 10.1037/a0016848
- Kessler, R. C., Andrews, G., Colpe, L. G., Hiripi, E., Mroczek, D. K., Normand, S. L.,...Zaslavsky, A. M. (2002). Short screening scales to monitor population prevalences

- and trends in non-specific psychological distress. *Psychological Medicine*, 32(6), 959-976. doi: 10.1017/S0033291702006074
- Link, B. G., & Phelan, J. C. (2001). Conceptualizing stigma. *Annual Review of Sociology*, 27, 363-385. doi: 10.1146/annurev.soc.27.1.363
- Major, B., & O'Brien, L. T. (2005). The social psychology of stigma. *Annual Review of Psychology*, 56, 393-421. doi: 10.1146/annurev.psych.56.091103.070137
- Meyer, I. H. (1995). Minority stress and mental health in gay men. *Journal of Health and Social Behavior*, 36(1), 38-56. doi: 10.2307/213728
- Meyer, I. H. (2003). Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: Conceptual issues and research evidence. *Psychological Bulletin*, 129(5), 674-697. doi: 10.1037/0033-2909.129.5.674
- Meyer, I.H. & Frost, D.M. (2012). Minority stress and the health of sexual minorities. In C.J. Patterson & A.R. D'Augelli (Eds.), *Handbook of psychology and sexual orientation* (pp. 252-266). New York, NY: Oxford University Press. doi: 10.1093/acprof:oso/9780199765218.003.0018
- Meyer, I. H., Ouellette, S. C., Haile, R., & McFarlane, T. A. (2011). "We'd be free": Narratives of life without homophobia, racism, or sexism. *Sexuality Research & Social Policy: A Journal of the NSRC*, 8(3), 204-214. doi: 10.1007/s13178-011-0063-0
- Meyer, I. H., Schwartz, S., & Frost, D. M. (2008). Social patterning of stress and coping: Does disadvantaged social statuses confer more stress and fewer coping resources?. *Social Science & Medicine*, 67(3), 368-379. doi: 10.1016/j.socscimed.2008.03.012
- Mickelson, K. D. (2001). Perceived stigma, social support, and depression. *Personality and Social Psychology Bulletin*, 27(8), 1046-1056. doi: 10.1177/0146167201278011

- Mickelson, K. D., & Williams, S. L. (2008). Perceived stigma of poverty and depression: Examination of interpersonal and intrapersonal mediators. *Journal of Social and Clinical Psychology, 27*(9), 903-930. doi: 10.1521/jscp.2008.27.9.903
- Mossakowski, K. N. (2003). Coping with Perceived Discrimination: Does Ethnic Identity Protect Mental Health?. *Journal of Health and Social Behavior, 44*(3), 318-331. doi: 10.2307/1519782
- Mulick, P. S., & Wright, L. R. (2002). Examining the existence of biphobia in the heterosexual and homosexual populations. *Journal of Bisexuality, 2*(4), 45-64. doi: 10.1300/J159v02n04_03
- Pachankis, J. E. (2014). Uncovering clinical principles and techniques to address minority stress, mental health, and related health risks among gay and bisexual men. *Clinical Psychology: Science and Practice, 21*, 313-330.
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.
- Rutledge, S., Siebert, D., Siebert, C., & Chonody, J. (2011). Attitudes toward gays and lesbians: A latent class analysis of university students. *Journal of Social Service Research, 38*(1), 18-28. doi: 10.1080/01488376.2011.598721
- Savin-Williams, R. C. (2001). A critique of research on sexual-minority youths. *Journal of Adolescence, 24*(1), 5-13. doi:10.1006/jado.2000.0369
- Sellers, R. M., Caldwell, C. H., Schmeelk-Cone, K. H., & Zimmerman, M. A. (2003). Racial identity, racial discrimination, perceived stress, and psychological distress among African American young adults. *Journal of Health and Social Behavior, 44*(3), 302-317. doi: 10.2307/1519781

- Sellers, R. M., Copeland-Linder, N., Martin, P. P. and Lewis, R. L. (2006), Racial identity matters: The relationship between racial discrimination and psychological functioning in African American adolescents. *Journal of Research on Adolescence*, 16, 187–216. doi: 10.1111/j.1532-7795.2006.00128.x
- Sellers, R. M., Rowley, S. J., Chavous, T. M., Shelton, J., & Smith, M. A. (1997). Multidimensional Inventory of Black Identity: A preliminary investigation of reliability and construct validity. *Journal of Personality and Social Psychology*, 73(4), 805-815. doi: 10.1037/0022-3514.73.4.805
- Sellers, R. M., Smith, M. A., Shelton, J. N., Rowley, S. A., & Chavous, T. M. (1998). Multidimensional model of racial identity: A reconceptualization of African American racial identity. *Personality and Social Psychology Review*, 2(1), 18-39. doi: 10.1207/s15327957pspr0201_2
- Simmons, C., Worrell, F. C., & Berry, J. M. (2008). Psychometric properties of scores on three black racial identity scales. *Assessment*, 15(3), 259-276. doi: 10.1177/1073191108314788
- Southern Poverty Law Center (2013). Active anti-gay groups. Retrieved from: http://www.splcenter.org/get-informed/intelligence-files/ideology/anti-gay/active_hate_groups
- Stirratt, M. J., Meyer, I. H., Ouellette, S. C., & Gara, M. A. (2008). Measuring identity multiplicity and intersectionality: Hierarchical classes analysis (HICLAS) of sexual, racial, and gender identities. *Self and Identity*, 7(1), 89-111. doi: 10.1080/15298860701252203

Thomas, A., Speight, S. L., & Witherspoon, K. M. (2010). Racial socialization, racial identity, and race-related stress of African American parents. *The Family Journal*, 18(4), 407-412.
doi: 10.1177/1066480710372913

APPENDICES

Appendix A Demographic Questions

Sex:

☐ Male
☐ Female

Age: ____

Race: ☐ Alaskan/Native American
☐ African American
☐ Asian
☐ Caucasian/White
☐ Hispanic
☐ Other

Sexual orientation:

☐ Heterosexual
☐ Bi-sexual
☐ Homosexual
☐ Other, Please Specify: _____

Education:

How many years of school did you complete? Mark highest grade completed.

Grade: 7 8 9 10 11 12 or GED high school equivalent

College: 1 2 3 4 5

Graduate School: 1 2 3 4 5 6 7

Are you currently a college student? Y/N

If yes name of University/College: _____

What level are you currently? ☐ Undergraduate
☐ Graduate
☐ Non-degree seeking

Appendix B
Kessler Psychological Distress Scale

Please indicate how often you have experienced these feelings during the past 30 days.

None of the time	A little of the time	Some of the time	Most of the time	All of the time
0	1	2	3	4

1. During the last 30 days, about how often did you feel tired for no good reason?
2. During the last 30 days, about how often did you feel nervous?
3. During the last 30 days, about how often did you feel so nervous that nothing could calm you down?
4. During the last 30 days, about how often did you feel hopeless?
5. During the last 30 days, about how often did you feel restless or fidgety?
6. During the last 30 days, about how often did you feel so restless you could not sit still?
7. During the last 30 days, about how often did you feel depressed?
8. During the last 30 days, about how often did you feel that everything was an effort?
9. During the last 30 days, about how often did you feel so sad that nothing could cheer you up?
10. During the last 30 days, about how often did you feel worthless?

Appendix C

Rosenberg Self-Esteem Scale

Please record the appropriate answer for each item, depending on whether you strongly agree, agree, disagree, or strongly disagree with it.

- 1 = Strongly Agree
- 2 = Agree
- 3 = Disagree
- 4 = Strongly Disagree

1. On the whole, I am satisfied with myself.
2. At times, I think I am no good at all.
3. I feel that I have a number of good qualities.
4. I am able to do things as well as most other people.
5. I feel I do not have much to be proud of.
6. I certainly feel useless at times.
7. I feel that I'm a person of worth.
8. I wish I could have more respect for myself.
9. All in all, I am inclined to think that I am a failure.
10. I take a positive attitude toward myself.

Appendix D
Multidimensional Inventory of Black Identity (adapted)

Directions: Please read the following questions and indicate if you strongly agree or strongly disagree with each statement. (Scale of 1 to 7)

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

Regard Scale:

Private regard Subscale:

- 1) I feel good about other people with my sexual orientation.
- 2) I am happy with my sexual orientation.
- 3) I feel that people with my sexual orientation have made major accomplishments and advancements.
- 4) I often regret my sexual orientation.
- 5) I am proud to be a member of my sexual orientation group.
- 6) I feel that my sexual orientation community has made valuable contributions to this society.

Public Regard Subscale:

- 1) Overall, my sexual orientation is considered good by others.
- 2) In general, others respect individuals with my sexual orientation.
- 3) Most people consider individuals with my sexual orientation, on the average, to be more ineffective than other sexual orientations.
- 4) My sexual orientation is not respected by the broader society.
- 5) In general, other groups view my sexual orientation in a positive manner.
- 6) Society views individuals in my sexual orientation as an asset.

Centrality Scale:

- 1) Overall, my sexual orientation has very little to do with how I feel about myself.
- 2) In general, my sexual orientation is an important part of my self-image.
- 3) My destiny is tied to the destiny of others with my sexual orientation.
- 4) My sexual orientation is unimportant to my sense of what kind of person I am.
- 5) I have a strong sense of belonging to my people of my sexual orientation.
- 6) I have a strong attachment to other people that share my sexual orientation.
- 7) My sexual orientation is an important reflection of who I am.
- 8) My sexual orientation is not a major factor in my social relationships.

Ideology Scale:

Assimilation Subscale:

- 1) A sign of progress is that homosexuals are in the mainstream of America more than ever before.
- 2) Homosexuals should strive to be full members of the American political system.
- 3) Homosexuals should try to work within the system to achieve their political and economic goals.
- 5) Homosexuals should feel free to interact socially with heterosexuals.
- 6) Homosexuals should view themselves as being Americans first and foremost.
- 7) The plight of homosexuals in America will improve only when homosexuals are in important positions within the system.

Humanist Scale:

- 1) Homosexual values should not be inconsistent with human values.
- 2) Homosexuals should have the choice to marry.
- 3) Homosexuals and heterosexuals have more commonalities than differences.
- 4) People should not consider sexual orientation when buying art or selecting a book to read.
- 5) Being an individual is more important than identifying one's sexual orientation.
- 6) We are all children of a higher being; therefore, we should love people of all sexual orientation.
- 7) People should judge others as individuals and not as members of a particular sexual orientation.
- 8) People regardless of their sexual orientation have strengths and limitations.

Oppressed Minority Subscale:

- 1) The same forces which have led to the oppression of Homosexuals have also led to the oppression of other groups.
- 2) The struggle for homosexual liberation in America should be closely related to the struggle of other oppressed groups.
- 3) Homosexuals should learn about the oppression of other groups.
- 4) Homosexuals should treat other oppressed people as allies.
- 5) The heterosexism of homosexuals have experienced is similar to that of other minority groups.
- 6) There are other people who experience injustice and indignities similar to homosexuals.
- 7) Homosexuals will be more successful in achieving their goals if they form coalitions with other oppressed groups.
- 8) Homosexuals should try to become friends with people from other oppressed groups.
- 9) The dominant society devalues anything not Heterosexual oriented.

Nationalist Subscale:

- 1) It is important for homosexuals to surround their children with art, music, and literature created by homosexuals.
- 2) Homosexuals should not marry.
- 3) Whenever possible, homosexuals should buy from other homosexual businesses.
- 4) A thorough knowledge of homosexual history is very important for homosexuals today.
- 5) Homosexuals and heterosexuals can never live in true harmony because of sexual differences.
- 6) Heterosexual people can never be trusted where homosexuals are concerned.

Appendix E
Perceived Stigma Scale (adapted)

The following are questions about feelings and emotions you have had about your sexual orientation. These feelings and emotions are natural and experienced by many individuals. Please indicate how much you agree with the statements using the following scale:

Definitely Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Definitely Agree	N/A
1	2	3	4	5	9

1. I have felt odd/abnormal because of my sexual orientation.
2. There have been times when I have felt ashamed because of my sexual orientation.
3. I have never felt self-conscious when I am in public.
4. People have treated me different because of my sexual orientation.
5. I never have felt embarrassed because of my sexual orientation.
6. I feel others have looked down on me because of my sexual orientation.
7. I have found that people say negative or unkind things about me behind my back because of my sexual orientation.
8. I have been excluded from work, school, and/or family functions because of my sexual orientation.

VITA

EMMA G. FREDRICK

- Education: B.S. Psychology, Middle Tennessee State University,
Murfreesboro, Tennessee, 2012
- M.A. Psychology, East Tennessee State University, Johnson City,
Tennessee, 2015
- Professional Experience: Undergraduate Research Assistant, Middle Tennessee State
University, 2010-2011
- Undergraduate Honors Thesis, Middle Tennessee State University,
2011-2012
- Graduate Research Assistant, East Tennessee State University,
2013-present
- Instructor, Design & Analysis II Lab, East Tennessee State
University, 2014-present
- Publications: Williams, S.L., Mann, A.K., & **Fredrick, E.F.** (under review)
Proximal minority stress, psychosocial resources, and health in
sexual minorities.
- Select Presentations: **Fredrick, E.G.**, Klik, K.A., LaDuke, S.L., Williams, S.L., Mann,
A.K. (January 2015) *Methodology in Sexual Minority Stigma
Research*. Poster session presented at the meeting of the National
Multicultural Conference and Summit, Atlanta, GA.
- Fredrick, E.G.**, Williams, S.L. (June 2014; April 2014) *An
intersectional approach to the study of sexual stigma*. Oral
presentation at the meeting of the Society for the Psychological
Study of Social Issues, Portland, OR and at the meeting of the
Appalachian Student Research Forum, Johnson City, TN.

Fredrick, E.G., Williams, S.L. (November 2013). *What about bisexuality? Differentiating and predicting attitudes toward bisexuality*. Poster session presented at the meeting of the Society of Southeastern Social Psychologists, Augusta, GA.

Fredrick, E.G., Dean, B. (April 2012). *Political attitudes in young men regarding race and political affiliation*. Oral presentation at the meeting of the Middle Tennessee Psychological Association, Murfreesboro, TN.

Fredrick, E.G., Holden, K.E., Emerson, A.E., Jenkins, N.R., Pennington, J.T. (May, 2011). *Now you taste it, now you don't: confirmation biases in taste perception*. Poster session presented at the meeting of the Association for Psychological Science, Washington, D.C.

Select Honors and Awards: Society for the Psychological Study of Social Issues Graduate Student Travel Award for 2015 National Multicultural Conference and Summit, Fall 2014

APA Division 44's Student and Recent Graduates Travel Award, Summer 2014

First Place Oral Presentation, Master's Candidates Arts & Humanities and Society & Behavior, Appalachian Student Research Forum, Spring 2014

Graduate Student Association in Psychology Travel Award, Spring 2014

Select Service: Campus Climate at East Tennessee State University Committee, Fall 2014-present

LGBTQ in the Academy Conference Project Officer, Spring 2014-Fall 2014